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**FULL ESTIMATED COST**

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CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

=> s Marx, Uwe/in  
'IN' IS NOT A VALID FIELD CODE

L1 57 MARX, UWE/IN

L2 1 L1 AND FLUOROPOLYMER# AND SULFUR POLYM

-> a

L2 ANSWER 1 OF 1 USPATFULL

Full Text      Preferences

AN 2002:280743 USPATFULL  
TI Polymer mixture  
IN Marx, Uwe, Postbauer-Heng, GERMANY, FEDERAL REPUBLIC OF  
PA NEXANS (non-U.S. corporation)  
PI US 2002156192 A1 20021024  
AI US 2002-67406 A1 20020207 (10)  
PRAI DE 2001-108347 20010221  
DT Utility  
FS APPLICATION  
LN.CNT 115  
INCL INCLM: 525/189.000  
NCL NCLM: 525/189.000  
IC [7]  
ICM: C08L081-00  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s (fluoropolymer# or ethylene-tetrafluoroethylene copolymer#) and (sulfur polymer#)

L3 2174 (FLUOROPOLYMER# OR ETHYLENE-TETRAFLUOROETHYLENE COPOLYMER#) AND  
(SULFUR POLYMER# OR POLYPHENYLENE SULFIDE OR PPS OR POLYSULFONE  
OR PSU OR POLYETHER SULFONE OR PES)

=> s 13 and fluoropolymer# and sulfur polymer#  
 L4 15 L3 AND FLUOROPOLYMER# AND SULFUR POLYMER#

=> s 14 and polymer mixture#  
 L5 1 L4 AND POLYMER MIXTURE#

=> d

L5 ANSWER 1 OF 1 USPATFULL

Full	Citing
Text	References

AN 2002:280743 USPATFULL  
 TI **Polymer mixture**  
 IN Marx, Uwe, Postbauer-Heng, GERMANY, FEDERAL REPUBLIC OF  
 PA NEXANS (non-U.S. corporation)  
 PI US 2002156192 A1 20021024  
 AI US 2002-67406 A1 20020207 (10)  
 PRAI DE 2001-108347 20010221  
 DT Utility  
 FS APPLICATION  
 LN.CNT 115  
 INCL INCLM: 525/189.000  
 NCL NCLM: 525/189.000  
 IC [7]  
 ICM: C08L081-00  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s 14 and ethylene-tetrafluoroethylene  
 L6 0 L4 AND ETHYLENE-TETRAFLUOROETHYLENE

=> d 14 1-15

L4 ANSWER 1 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

Full
Text

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

AN 1151486 EUROPATFULL ED 20030527 EW 200321 FS PS  
 TIEN PROTECTIVE COATING FOR SEPARATORS FOR ELECTROCHEMICAL CELLS.  
 TIDE SCHUTZSCHICHT FUeR SEPARATOREN FUeR ELEKTROCHEMISCHE ZELLEN.  
 TIFR REVETEMENT PROTECTEUR DESTINE A DES SEPARATEURS POUR CELLULES  
 ELECTROCHIMIQUES.  
 IN YING, Qicong, 600 North Pantano Road, Tucson, AZ 85710, US;  
 CARLSON, Steven, A., 993 Memorial Drive 101, Cambridge, MA 02138, US;  
 SKOTHEIM, Terje, A., 7080 N. Cathedral Rock Place, Tucson, AZ 85718, US  
 PA Moltech Corporation, 9062 South Rita Road, Tucson, AZ 85747, US  
 SO Wila-EPS-2003-H21-T2  
 DS R DE; R FR; R GB; R IT  
 PIT EPB1 EUROPÄISCHE PATENTSCHRIFT (Internationale Anmeldung)  
 PI EP 1151486 B1 20030521  
 OD 20011107  
 AI EP 1999-966420 19991216  
 PRAI US 1998-215029 19981217  
 US 1999-399967 19990921  
 US 1999-447901 19991123  
 RLI WO 99-US30214 991216 INTAKZ  
 WO 00036671 000622 INTPNR  
 REP EP 836238 A WO 99-33125 A  
 US 5314765 A US 5549989 A  
 US 5648187 A  
 IC ICM H01M002-16  
 ICS H01M010-40 B01D071-02

L4 ANSWER 2 OF 15 PCTFULL COPYRIGHT 2003 Univentio

**Full  
Text**

AN 2000036671 PCTFULL ED 20020515  
 TIEN PROTECTIVE COATING FOR SEPARATORS FOR ELECTROCHEMICAL CELLS  
 TIFR REVETEMENT PROTECTEUR DESTINE A DES SEPARATEURS POUR CELLULES  
   ELECTROCHIMIQUES  
 IN YING, Qicong;  
   CARLSON, Steven, A.;  
   SKOTHEIM, Terje, A.  
 PA MOLTECH CORPORATION;  
   YING, Qicong;  
   CARLSON, Steven, A.;  
   SKOTHEIM, Terje, A.  
 LA English  
 DT Patent  
 PI WO 2000036671 A1 20000622  
 DS W:    AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE  
       ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC  
       LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD  
       SE SG SI SK SL TJ TM TR TT TZ UA UG US US UZ VN YU ZA ZW  
       GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM  
       AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ  
       CF CG CI CM GA GN GW ML MR NE SN TD TG  
 AI WO 1999-US30214 A 19991216  
 PRAI US 1998-09/215,029 19981217  
   US 1999-09/399,967 19990921  
   US 1999-09/447,901 19991123  
 ICM H01M002-16  
 ICS H01M010-40; B01D071-02

L4 ANSWER 3 OF 15 PCTFULL COPYRIGHT 2003 Univentio

**Full  
Text**

AN 2000036670 PCTFULL ED 20020515  
 TIEN PROTECTIVE COATING FOR SEPARATORS FOR ELECTROCHEMICAL CELLS  
 TIFR REVETEMENT DE PROTECTION DE SEPARATEURS POUR CELLULES ELECTROCHIMIQUES  
 IN YING, Qicong;  
   CARLSON, Steven, A.;  
   SKOTHEIM, Terje, A.  
 PA MOLTECH CORPORATION;  
   YING, Qicong;  
   CARLSON, Steven, A.;  
   SKOTHEIM, Terje, A.  
 LA English  
 DT Patent  
 PI WO 2000036670 A1 20000622  
 DS W:    AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM  
       EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
       LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU  
       SD SE SG SI SK SL TJ TM TR TT TZ UA UG US US UZ VN YU ZA  
       ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ  
       TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF  
       BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
 AI WO 1999-US30136 A 19991216  
 PRAI US 1998-09/215,029 19981217  
   US 1999-09/399,967 19990921  
   US 1999-09/447,901 19991123  
 ICM H01M002-16  
 ICS H01M010-40; B01D071-02

L4 ANSWER 4 OF 15 PCTFULL COPYRIGHT 2003 Univentio

Full  
 Text

AN 1999033125 PCTFULL ED 20020515  
 TIEN SEPARATORS FOR ELECTROCHEMICAL CELLS  
 TIFR SEPARATEURS POUR CELLULES ELECTROCHIMIQUES  
 IN CARLSON, Steven, A.; .  
 DENG, Zhongyi;  
 YING, Qicong;  
 SKOTHEIM, Terje, A.  
 PA MOLTECH CORPORATION;  
 CARLSON, Steven, A.;  
 DENG, Zhongyi;  
 YING, Qicong;  
 SKOTHEIM, Terje, A.  
 LA English  
 DT Patent  
PI WO 9933125 A1 19990701  
 DS W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI  
 GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
 LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI  
 SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SZ  
 UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR  
 GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR  
 NE SN TD TG  
AI WO 1998-US26913 A 19981217  
PRAI US 1997-08/995,089 19971219  
 ICM H01M002-16  
 ICS H01M006-14; H01M010-40; H01M010-36; B01D071-02

L4 ANSWER 5 OF 15 USPATFULL

Full  
 Citing  
 References

AN 2002:280743 USPATFULL  
 TI Polymer mixture  
 IN Marx, Uwe, Postbauer-Heng, GERMANY, FEDERAL REPUBLIC OF  
 PA NEXANS (non-U.S. corporation)  
PI US 2002156192 A1 20021024  
AI US 2002-67406 A1 20020207 (10)  
PRAI DE 2001-108347 20010221  
 DT Utility  
 FS APPLICATION  
 LN.CNT 115  
 INCL INCLM: 525/189.000  
 NCL NCLM: 525/189.000  
 IC [7]  
 ICM: C08L081-00  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 6 OF 15 USPATFULL

Full  
 Citing  
 References

AN 2002:176392 USPATFULL  
 TI Separators for electrochemical cells  
 IN Carlson, Steven A., Cambridge, MA, UNITED STATES  
 Ying, Qicong, Tucson, AZ, UNITED STATES  
 Deng, Zhongyi, Tucson, AZ, UNITED STATES  
 Skotheim, Terje A., Tucson, AZ, UNITED STATES  
PI US 2002092155 A1 20020718  
AI US 2001-40651 A1 20011022 (10)  
RLI Continuation of Ser. No. US 1998-215112, filed on 17 Dec 1998, PATENTED  
 Continuation-in-part of Ser. No. US 1997-995089, filed on 19 Dec 1997,  
 PATENTED  
 DT Utility  
 FS APPLICATION

LN.CNT 1915  
 INCL INCLM: 029/623.500  
       INCLS: 429/247.000; 429/251.000; 427/126.400  
 NCL NCLM: 029/623.500  
       NCLS: 429/247.000; 429/251.000; 427/126.400  
 IC [7]  
     ICM: H01M010-04  
     ICS: H01M002-16; B05D005-12  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L4 ANSWER 7 OF 15 USPATFULL

Full	Citing
Text	References

AN 2002:152340 USPATFULL  
 TI Method of making separators for electrochemical cells comprising a microporous pseudo-boehmite layer  
 IN Ying, Qicong, Tucson, AZ, United States  
       Carlson, Steven A., Cambridge, MA, United States  
       Skotheim, Terje A., Tucson, AZ, United States  
 PA Moltech Corporation, Tucson, AZ, United States (U.S. corporation)  
 PI US 6410182 B1 20020625  
 AI US 2000-641539 20000818 (9)  
 RLI Division of Ser. No. US 1998-215029, filed on 17 Dec 1998, now patented,  
       Pat. No. US 6194098  
 DT Utility  
 FS GRANTED  
 LN.CNT 2008  
 INCL INCLM: 429/129.000  
       INCLS: 429/144.000; 429/247.000; 429/249.000; 429/251.000; 429/300.000;  
       429/304.000  
 NCL NCLM: 429/129.000  
       NCLS: 429/144.000; 429/247.000; 429/249.000; 429/251.000; 429/300.000;  
       429/304.000  
 IC [7]  
     ICM: H01M002-14  
     ICS: H01M002-16  
 EXF 429/129; 429/144; 429/247; 429/249; 429/251; 429/300; 429/304  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L4 ANSWER 8 OF 15 USPATFULL

Full	Citing
Text	References

AN 2001:233247 USPATFULL  
 TI Protective coating for separators for electrochemical cells  
 IN Ying, Qicong, Tucson, AZ, United States  
       Carlson, Steven A., Cambridge, MA, United States  
       Skotheim, Terje A., Tucson, AZ, United States  
 PI US 2001053475 A1 20011220  
 AI US 2001-898884 A1 20010702 (9)  
 RLI Division of Ser. No. US 1999-447901, filed on 23 Nov 1999, GRANTED, Pat.  
       No. US 6277514 Continuation-in-part of Ser. No. US 1999-399967, filed on  
       21 Sep 1999, GRANTED, Pat. No. US 6183901 Continuation-in-part of Ser.  
       No. US 1998-215029, filed on 17 Dec 1998, GRANTED, Pat. No. US 6194098  
 DT Utility  
 FS APPLICATION  
 LN.CNT 2435  
 INCL INCLM: 429/137.000  
       INCLS: 429/246.000; 429/212.000; 427/126.300; 427/126.400  
 NCL NCLM: 429/137.000  
       NCLS: 429/246.000; 429/212.000; 427/126.300; 427/126.400  
 IC [7]  
     ICM: H01M002-16  
     ICS: B05D005-12  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L4 ANSWER 9 OF 15 USPATFULL

Full	Citing
Text	References

AN 2001:184986 USPATFULL  
 TI Separators for electrochemical cells  
 IN Carlson, Steven A., Cambridge, MA, United States  
     Ying, Qicong, Tucson, AZ, United States  
     Deng, Zhongyi, Tucson, AZ, United States  
     Skotheim, Terje A., Tucson, AZ, United States  
 PA Moltech Corporation, Tucson, AZ, United States (U.S. corporation)  
 PI US 6306545 B1 20011023  
 AI US 1998-215112 19981217 (9)  
 RLI Continuation-in-part of Ser. No. US 1997-995089, filed on 19 Dec 1997,  
     now patented, Pat. No. US 6153337  
 DT Utility  
 FS GRANTED  
 LN.CNT 1957  
 INCL INCLM: 429/247.000  
     INCLS: 429/251.000; 501/153.000  
 NCL NCLM: 429/247.000  
     NCLS: 429/251.000; 501/153.000  
 IC [7]  
     ICM: H01M002-16  
     ICS: C04B035-10  
 EXF 429/247; 429/251; 501/153  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L4 ANSWER 10 OF 15 USPATFULL

Full	Citing
Text	References

AN 2001:136320 USPATFULL  
 TI Protective coating for separators for electrochemical cells  
 IN Ying, Qicong, Tucson, AZ, United States  
     Carlson, Steven A., Cambridge, MA, United States  
     Skotheim, Terje A., Tucson, AZ, United States  
 PA Moltech Corporation, Tucson, AZ, United States (U.S. corporation)  
 PI US 6277514 B1 20010821  
 AI US 1999-447901 19991123 (9)  
 RLI Continuation-in-part of Ser. No. US 1999-399967, filed on 21 Sep 1999,  
     now patented, Pat. No. US 6183901 Continuation-in-part of Ser. No. US  
     1998-215029, filed on 17 Dec 1998, now patented, Pat. No. US 6194098  
 DT Utility  
 FS GRANTED  
 LN.CNT 2264  
 INCL INCLM: 429/129.000  
     INCLS: 429/144.000; 429/247.000; 429/249.000; 429/250.000; 429/251.000;  
         429/218.100; 429/231.100; 429/231.400; 429/300.000; 429/304.000  
 NCL NCLM: 429/129.000  
     NCLS: 429/144.000; 429/218.100; 429/231.100; 429/231.400; 429/247.000;  
         429/249.000; 429/250.000; 429/251.000; 429/300.000; 429/304.000  
 IC [7]  
     ICM: H01M002-14  
 EXF 429/129; 429/144; 429/247; 429/249; 429/250; 429/251; 429/218.1;  
     429/231.1; 429/231.4; 429/300; 429/304  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

## L4 ANSWER 11 OF 15 USPATFULL

Full	Citing
Text	References

AN 2001:88350 USPATFULL  
 TI Protective coating for separators for electrochemical cells  
 IN Ying, Qicong, Tucson, AZ, United States  
     Carlson, Steven A., Cambridge, MA, United States

PI Skotheim, Terje A., Tucson, AZ, United States  
US 2001000485 A1 20010426  
US 6423444 B2 20020723  
 AI US 2000-727160 A1 20001130 (9)  
 RLI Division of Ser. No. US 1999-399967, filed on 21 Sep 1999, GRANTED, Pat.  
 No. US 6183901 Continuation-in-part of Ser. No. US 1998-215029, filed on  
 17 Dec 1998, PENDING  
 DT Utility  
 FS APPLICATION  
 LN.CNT 2242  
 INCL INCLM: 429/228.000  
 INCLS: 429/054.000; 429/302.000; 429/204.000; 429/247.000; 205/063.000  
 NCL NCLM: 429/129.000  
 NCLS: 429/144.000; 429/247.000; 429/249.000; 429/251.000; 429/304.000  
 IC [7]  
 ICM: H01M002-14  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 12 OF 15 USPATFULL

Full  Citing  
 Text  References

AN 2001:29251 USPATFULL  
 TI Protective coating for separators for electrochemical cells  
 IN Ying, Qicong, Tucson, AZ, United States  
 Carlson, Steven A., Cambridge, MA, United States  
 Skotheim, Terje A., Tucson, AZ, United States  
 PA Moltech Corporation, Tucson, AZ, United States (U.S. corporation)  
 PI US 6194098 B1 20010227  
 AI US 1998-215029 19981217 (9)  
 DT Utility  
 FS Granted  
 LN.CNT 2159  
 INCL INCLM: 429/129.000  
 INCLS: 429/144.000; 429/247.000; 429/249.000; 429/251.000; 429/218.100;  
 429/231.100; 429/231.400; 429/231.950; 429/300.000; 429/304.000  
 NCL NCLM: 429/129.000  
 NCLS: 429/144.000; 429/218.100; 429/231.100; 429/231.400; 429/231.950;  
 429/247.000; 429/249.000; 429/251.000; 429/300.000; 429/304.000  
 IC [7]  
 ICM: H01M002-14  
 ICS: H01M002-16  
 EXF 429/247; 429/248; 429/249; 429/250; 429/251; 429/131; 429/142; 429/144;  
 429/145; 429/218.1; 429/231.1; 429/231.4; 429/231.95; 429/300; 429/304  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 13 OF 15 USPATFULL

Full  Citing  
 Text  References

AN 2001:18149 USPATFULL  
 TI Protective coating for separators for electrochemical cells  
 IN Ying, Qicong, Tucson, AZ, United States  
 Carlson, Steven A., Cambridge, MA, United States  
 Skotheim, Terje A., Tucson, AZ, United States  
 PA Moltech Corporation, Tucson, AR, United States (U.S. corporation)  
 PI US 6183901 B1 20010206  
 AI US 1999-399967 19990921 (9)  
 RLI Continuation-in-part of Ser. No. US 1998-215029, filed on 17 Dec 1998  
 DT Utility  
 FS Granted  
 LN.CNT 2065  
 INCL INCLM: 429/129.000  
 INCLS: 429/144.000; 429/247.000; 429/249.000; 429/251.000; 429/218.100;  
 429/231.100; 429/231.400; 429/231.950; 429/300.000; 429/304.000  
 NCL NCLM: 429/129.000

NCLS: 429/144.000; 429/218.100; 429/231.100; 429/231.400; 429/231.950;  
429/247.000; 429/249.000; 429/251.000; 429/300.000; 429/304.000

IC [7]

ICM: H01M002-14

ICS: H01M002-16

EXF 429/247; 429/248; 429/249; 429/250; 429/251; 429/131; 429/142; 429/144;  
429/145; 429/218.1; 429/231.1; 429/231.4; 429/231.95; 429/300; 429/304

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 14 OF 15 USPATFULL

Full  Citing  
 Text  References

AN 2000:160734 USPATFULL

TI Separators for electrochemical cells

IN Carlson, Steven A., Cambridge, MA, United States

Deng, Zhongyi, Tucson, AZ, United States

Ying, Qicong, Tucson, AZ, United States

Skotheim, Terje A., Tucson, AZ, United States

PA Moltech Corporation, Tucson, AZ, United States (U.S. corporation)

PI US 6153337 20001128

AI US 1997-995089 19971219 (8)

DT Utility

FS Granted

LN.CNT 1584

INCL INCLM: 429/247.000

INCLS: 429/251.000; 501/153.000; 427/126.400

NCL NCLM: 429/247.000

NCLS: 427/126.400; 429/251.000; 501/153.000

IC [7]

ICM: H01M002-16

EXF 429/142; 429/247; 429/251; 501/153; 427/126.4

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 15 OF 15 USPAT2

Full  Citing  
 Text  References

AN 2001:88350 USPAT2

TI Methods of making separators for electrochemical cells comprising  
pseudo-boehmite layers and a protective coating layer

IN Ying, Qicong, Tucson, AZ, United States

Carlson, Steven A., Cambridge, MA, United States

Skotheim, Terje A., Tucson, AZ, United States

PA Moltech Corporation, Tucson, AR, United States (U.S. corporation)

PI US 6423444 B2 20020723

AI US 2000-727160 20001130 (9)

RLI Division of Ser. No. US 1999-399967, filed on 21 Sep 1999, now patented,  
Pat. No. US 6183901 Continuation-in-part of Ser. No. US 1998-215029,  
filed on 17 Dec 1998, now patented, Pat. No. US 6194098

DT Utility

FS GRANTED

LN.CNT 2149

INCL INCLM: 429/129.000

INCLS: 429/144.000; 429/247.000; 429/249.000; 429/251.000; 429/304.000

NCL NCLM: 429/129.000

NCLS: 429/144.000; 429/247.000; 429/249.000; 429/251.000; 429/304.000

IC [7]

ICM: H01M002-14

EXF 429/129; 429/144; 429/247; 429/249; 429/251; 429/304

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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